

# CATS

CAPITOL AREA TIMEX/SINCLAIR  
USERS GROUP

# NEWSLETTER

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Vol 4, No. 12  
March 1987

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### PRESIDENTIAL RAMBLINGS

Well, as usual we ran out of time before all of the subject matter for last meeting could be covered. There are a lot of new toolkits and ICE's for the new QLs. Be sure to come to this meeting and find out about updates!!

We want to thank Mark Steuber (pronounced Steeber) for coming to the February meeting and demonstrating his War in the East software. In latter discussions, we talked about possible group discounts on RAM and disk interfaces. We can get 10 to 15 percent off the list if we buy as a group in lots of 5 or 10. We get a larger discount if we buy in larger quantities.

Vernon Smith demonstrated his prowess with the Spectrum Disk interface that has networking, interface 3 and serial ports built into it. This unit should be able to network with the QL too. Jack Dohaney called me and said that he would write a Spectrum driver for the Aerco disk system. He did say that the project would take the better part of this

year though, so don't hold your breath waiting for it. You may recall that Jack converted Mscript to run from disk last year.

The hardware workshop was busy beyond belief at the last meeting. We accomplished a lot; fixed a few more computers, made several adjustments, trashed a few microdrive cartridges, and so on. I expect that without all of the new hardware to work on this month, we can become civilized once again and maintain moderate insanity until the general meeting starts.

This meeting is somewhat open for discussion as to what needs to be discussed. We will demo several pieces of software (there is plenty of this) and some new hardware.

### TRENTON HAMFEST!!

There will be a Hamfest in Trenton, NJ on April 12<sup>th</sup>, at which there will be a Timex/Sinclair session. Come to the meeting for more details.

## SIR CLIVE'S WAR GAMES

February's CATS conclave had as its featured guest MARK L. STUEBER, president of Sharp's, Inc., the Richmond-based dispenser of all things Sinclair.

MARK devoted the major part of his discussion to his premier achievement as a war games programmer--"The War in the East" (EAST), which he developed exclusively for the Sinclair machines.

He began this opus in 1982 for the memory-enhanced T/S 1000, and later moved it to the color-oriented 2068. So far, over 4,000 of these copies have been sold.

With an extra 1,000 hours' work, MARK produced an exponentially more complicated version of EAST for the QL.

EAST is a strategic wargame pitting one player against the computer. It is not an arcade game, but is more closely related to chess. It has a 20-turn maximum, and may easily absorb a player for 8 to 10 hours. Or, a player may stop and save things, then continue later.

EAST is based historically on the colossal German-Russian confrontation of World War II. There are 5 full screens in the QL version which can be scrolled constantly. Various wartime scenarios exist.

The player (a.k.a. the Germans) must occupy 8 Russian cities to win. This is not easy to do. MARK, the originator, wins maybe 40% of the time. Ordinary players may never win, ever. However, there seems to be a constant supply of Sinclair owners willing and eager to try to squash the Soviets.

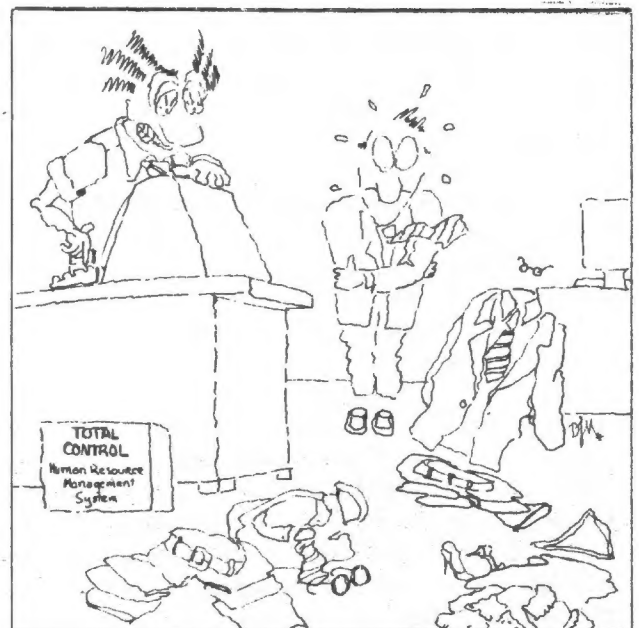
While stocking a large variety of Sinclair items, MARK indicated he is also willing to try to fill special requests for exotic items from the United Kingdom. So far his batting average on this has been high.

(MARK STEUBER can be reached at:  
Sharp's, Inc.; Rt. 10, Box 459  
Mechanicsville, VA 23111  
Days -- 804-746-1664  
Eves -- 804-730-9697)

## ATTENTION QL OWNERS!

One of the most powerful features of a user's group like CATS is the ability to do a group buy. Many of us have recently acquired a QL and are now thinking about expanding it. One of the first types of expansion to consider is to add one or more disk drives. This allows the QL to use a storage media that is 1) more reliable than microdrive cartridges, 2) more readily available, and 3) much higher capacity.

Mark Steuber of Sharp's has told us that he will sell us the Cumana disk interface in lots of 10 for \$109. The standard retail price is \$125 or more. If we could place an order of more than 10 the price would drop even more. This means that with a little judicious shopping around for a good buy on a disk drive, you could do this expansion for about \$200. We will talk about this more at the March meeting, but if you are interested in participating in this group buy and cannot come, call John Riley at (301) 674-8560.



Delete..BILL

Delete..JANET

Delete..CARL

Delete...

## NOTES FROM AN EDITOR

DTSA Newsletter, Feb 1987

Low cost is the most often cited virtue of the Sinclair family of machines. I, for one bought the World's Cheapest Computer, a \$99 Timex 1000, because I wanted to learn for myself what computers were all about. I figured that if I decided I didn't like them or if I was too dumb to learn how to program a computer... well, I had blown just one paycheck.

I do like computers and computing. That one purchase has led me into what I believe is the third most expensive hobby (right below Yacht Racing and Singles Relationships). I feel sometimes like some junkie who thinks and talks of nothing else but his 'habit.'

Hooked as I am, I get excited when I see new capabilities and features in machines coming out now, and frustrated that I can't fit them on to my budget. There is also the question of just how many computers I can keep and use before the FCC tracks me down and charges me with Intent to Cause Serious RFI. I have no desk space left, and the cabling / connection problems alone have taken a toll on my health. All my computers are underutilized. I have plans for them; if only I had a vacation and a government research grant....

The message is: that low-cost computing, for anyone who gets involved with their machines, is a totally illusory concept. The more you do, and the more dream up to do, the more you spend to realize that system of your dreams. It's no disgrace to total up your expenditures on that computer and find, ohmygosh, there are new cars that cost less than your system. At least the money went piece-meal: a MODEM here, a monitor there... Further, I assert that if you had saved all that money until you could buy the do-everything machines, you would have been older, not much wiser, and would end up spending even more, without the fun and frolic you've enjoyed all this time. So there.

If it ain't cheap, it's not Sir Clive's fault. I get the feeling that it's just a natural thing that happens, like the ticket for speeding you invariably get twenty minutes after having bragged about your spotless driving record. You buy computer with best features for price. Price goes down. Features go up. You can't lower price of computer, so you add features. Price of (computer) + (features) = price of (computer + features) \* 1.414, approximately. The one-point-four constant is called the Envy Factor, and it's value is known because you are always trying to end up with the square root of two computers (the one you own, and the one you just read about in BYTE).

I could be satiated, in isolation. Until I got a MODEM, I didn't think I really NEEDED one. When I got my 2068, I was really impressed with the cassette load speed relative to the 1000. Now I require disk drives for BOTH machines. I bought other machines as well. They, too are in the expansion process. Will it ever end?

I have to rethink my dreams, keeping in mind that I have only so much money: I can't expect everything out of a 2068, and I can't afford an Amiga.

Maybe I could get a QL for \$140, and one of those 3-1/2 inch drives.....

By the way, who won the America's Cup?

I'm always here at:

Glynn Harris  
605 Nantucket Circle  
Richardson, TX 75080  
BBS: Startext MC 55541

## Value Added Computing Mark Fisher, Editor, CATS N/L

Businesses have a system of describing what they are trying to do. Since they are just doing the same stuff as the rest of us, trying to get the income to exceed the outgo, a number of their concepts are applicable to everyday life.

One of these concepts is that of "Value Added". This is what keeps a business going. The central variable is the ratio of value added / cost of the 'raw' materials. Not all businesses operate at the same levels; a power company buys expensive coal and sells slightly more expensive electricity, while an aircraft manufacturer buys relatively cheap sheet metal and sells Learjets. Neither business is crazy - it's just that the Learjet takes a LOT of skilled labor to produce. Entire nations may make similar choices: they may choose to rely on their resources to pay for the amenities they require (Saudi Arabia, Bangladesh, and Wyoming); or, if they don't have a large resource base (such as San Diego, Israel, or Japan), they can claw their way up the capitalist system by upgrading the skills of their workers.

How about us? There might be said to be two similar classes of computerists. Those with jobs that supply surplus income can rely on their resources to obtain the power and features they need. Those without, (students, family persons, car owners) must cope with their computer cravings in another way.

How? by diving into the complexities of the programs. By spending TIME, instead of \$\$, and by focusing on limited, small areas of computing to tear into. It's a very different feeling from the person that can choose whatever hardware they need, but no less satisfying. In addition, I should stress, it's no cheaper overall. You will still need a minimum of equipment, as well as plenty of high quality time to puzzle through the systems: your partner will have to get used to having you stagger in at 3:00 AM, cheetohs on your breath, muttering about data structures.

Either choice can be a valid, fruitful way to move in the world of computers, and the choice is never so black and white as I've painted it. Whichever road you're on, take the time to write and tell us about it! (If you're unsure about your writing skills, I'll be glad to spruce up your text to the best of my ability.)

MF

## HOW TO MAKE ARCHIVAL COPIES ON THE 2068

The question that I have been asked most often in my short tenure as software librarian for CATS is, "How can I make backup copies of my programs, either on cassette or disk?" This tutorial comes as an answer that anyone should be able to follow.

You should ALWAYS, in my opinion, work from a backup (or "archival") copy of any program that you use regularly. This is true for several reasons. First, it is more convenient to have a heavily used program on a tape or disk of its own, rather than having to hunt it up from its hiding place among a bunch of other programs. And secondly, should some disaster ever befall your backup copy, the original is always at hand to make another copy from, but if something awful happens to your one and only copy, there will be weeping and wailing and gnashing of teeth!

### STEP 1:

Grab Volume 3 of your CATS 2068 Software Library and load in the program "Headscan". It will autorun, and show you a prompt that says, "Load a tape and press 'play'". Place the program that you want to backup in the tape deck and do what the nice utility asks! For an example in this tutorial, we will use a program from Volume 2, "Specdraw". Headscan reads the first few seconds of the program (the "header"), and then gives you a readout something like this:

```
load a tape and press "play"
```

```
program: specdraw  
data length: 1294  
auto start at: 1  
prog/vars length: 1294
```

```
for another tape, touch any key
```

What a nice bunch of info! Armed with this you are now ready for--

### STEP 2 :

REWIND your tape to the beginning of the program you are trying to backup. RESET your computer to get rid of Headscan. LOAD your to-be-backed-up program into the computer with the command MERGE "". This will load the Basic, check for errors, and then stop with an "OK" code. Now, put a fresh tape into the deck (don't forget to run it past the clear leader), and type in the command, "SAVE (program name) LINE (start address)". The example's command would be SAVE "specdraw" LINE 1. If your program is Basic only, then when the next "OK" report is given you're done! If your program has a machine-code component (it "multiloads"), go on to STEP 3.

### STEP 3: MACHINE CODE

RELOAD Headscan. Put the original tape back in the player and start it. Headscan will report the header information of the block of code, which will look something like this:

```
load a tape and press "play"
```

```
bytes: DRAW  
data length: 2610  
start address: 30000
```

```
for another tape, touch any key
```

Write it down. RESET the computer. Rewind the original tape a bit, and then enter the command LOAD "" (CODE). After you get the "OK" report, put the new tape back in; you know, the one you just saved the Basic portion of. Now, enter the command SAVE "(name of bytes)" (start address), (data length). To cite our example again, it would be

SAVE "draw" 30000, 2610. You're done! If there is another block of code in the program, as sometimes is the case, repeat STEP 3.

ADDITIONAL NOTE: If you are transferring your program to a storage media OTHER THAN cassette, such as disk, wafadrive, etc., the basic procedure is still the same. The IMPORTANT DIFFERENCE is that you MUST alter all SAVE and LOAD commands in the Basic program to the equivalent commands that your system uses, and (of course) you must use the proper syntax to store the program on the disk or whatever. Again I say unto you, USE THE APPROPRIATE SYNTAX FOR YOUR SYSTEM! On the AERCO disk system, for instance, you would have saved the Basic with MOVE "specdraw.bas",1 and you would have saved the machine code with MOVE "draw.bin",30000,2610. Do these simple things and you will discover that there will be no public domain programs and very few commercial ones that will defeat you in your quest for a "working copy".

If there are specific problems that you are having in backing up a particular program, feel free to address your questions to me (John Riley, 1316 Farrara Dr., Odenton, Maryland 21113) and I will be glad to do my best to help you! Also, if you do not yet have a copy of the first five volumes of the CATS 2068 Software Library (shame on you!), let me know and we will make arrangements. Send a self-addressed stamped envelope, please!



*"I know this may be an awkward time, but do you recall him ever mentioning source code."*

## QL PRODUCT REVIEW

Miracle Systems Centronics I/F  
by Mark Fisher

Well, "miracle" is a little strong, but this little fellow is remarkable. Physically, the interface consists of a DB-9 plug, nine (!) feet of connector cable, and the interface itself enclosed in a small box attached to the printer-end connector.

Having the actual interface at the printer end is smart on two counts: it removes at least one element of clutter from the vicinity of the computer, and it takes advantage of the serial protocol's natural resistance to interference to allow an unusually long printer cable. (You may not need it this long, but did you ever hear the saying "I've cut it and cut it and it's still too short!"

Functionally, it's what a piece of hardware should be: transparent to the user. By hooking your Centronics printer to your QL through this cable, you can imagine that it is a perfectly matched serial printer. But, you say "the QL has two serial ports, wired differently" - no problem! The I/F will work with either port!

From within QUILL, there is NO modification needed, aside from your printer-specific code. From SUPERbasic, OPENING the serial port you chose to plug it into activates it, leaving you free to "lprint" listings at will. I can't speak to the the efficiency of the graphics drivers, as my ITOH 8510 isn't supported by the stock QL driver package, but I'm sure it'ould work.

Lastly, price. How does \$34.95 for interface, cable, postage, and handling sound? From SHARP's, and others.

MF

See? that wasn't hard! Now it's your turn to review something.

Listed below, in no particular order, is a list of suppliers of Software, Hardware, and all manner of other goodies for the TS family of fine computers. Magazines are highlighted thusly "M". This list is a little dated and a few suppliers might have 'folded their tent, etc.,' but almost all should respond to a request for a catalog. A list of QL suppliers will be printed next issue.

\*SOFTWARE  
THOMAS B. WOODS  
P.O. BOX 64  
JEFFERSON, NH 03583

\*HACKSEL ELECTRONICS  
247 QUEEN ST. WEST  
TORONTO, ONT. M5W 1Z4  
CANADA

\*THE JOHN OLIGER CO.  
11601 WHIDBEY DR.  
CUMBERLAND, IN 46229

\*WMJ DATA SYSTEMS  
4 BUTTERFLY DRIVE  
HAUPPAUGE, NY 11788

\*CTH  
CHET LAMBERT, W4WDR  
1704 SAM DRIVE  
BIRMINGHAM, AL 35235

\*SYNWARE NEWS  
P.O. BOX 64  
JEFFERSON, NH 03583

\*TIME DESIGNS  
29722 HULT RD.  
COLTON, OR 97017

\*HAL-TRONIX, INC.  
P.O. BOX 1101 - DEPT R  
SOUTHGATE, MICH. 48195

\*JRC SOFTWARE  
P.O. BOX 448  
SCOTTSEBURG, IN 47170

\*BYTE POWER  
1748 MEADOWVIEW AVE.  
PICKERING, ONT L1V 3G8  
CANADA

\*ENGLISH MICRO CONNECTION  
15 KILBURN COURT  
NEWPORT, RI 02840

\*BUDGET ROBOTICS  
BOX 18616  
TUCSON, AZ 85731

\*H.C.S. SOFTWARE  
P.O. BOX 1754  
PORTSMOUTH, OH 45662

\*KAMREC SYSTEMS  
27366 BLUM  
ROSEVILLE, MI 48066

\*BUDGETSOFT COMPUTERS  
230 MAIN STREET  
RUSHVILLE, IN 46173

\*CURRY COMPUTER  
P.O. BOX 5607  
GLENDALE, AZ 85312-5607

\*ZEBRA SYSTEMS, INC  
78-06 JAMAICA AVE.  
WOODHAVEN, NY 11421

\*FOOTE SOFTWARE  
P.O. BOX 14655  
GAINESVILLE, FL 32604

\*LARKEN ELECTRONICS  
RR 2  
NAVAN, ONT K4B 1H9  
CANADA

\*MARKEL ENTERPRISES  
P.O. BOX 2392  
SECAUCUS, NJ 07094-0992

\*BILL JONES, GULF MICRO  
1317 STRATFORD AVE.  
PANAMA CITY, FL 32404

\*T-S HORIZONS  
2002 SUMMIT STREET  
PORTSMOUTH, OHIO 45662  
.. out of business..

\*A.F.R. SOFTWARE  
204-1605 PENNSYLVANIA AVE  
MIAMI BEACH, FL 33139

\*SHARPS, INC.  
RT. 10, BOX 459  
MECHANICSVILLE, VA 23111

\*SUNSET ELECTRONICS  
2254 TARAVAL STREET  
SAN FRANCISCO, CA 94116

\*E. ARTHUR BROWN CO.  
3404 PAWNEE DR.  
ALEXANDRIA, MN 56300

\*SILICON MTN COMPUTERS  
C-12, MTN STN. GROUP BOX  
NELSON, BC, V1L 5P1

\*SIRIUS WARE  
6 TURNING MILL RD.  
LEXINGTON, MA 02173

\*BEAVER SOFTWARE  
999 MUNROE AVE.  
WINNIPEG, MAN R2K 1J4  
CANADA

\*KNIGHTED COMPUTERS  
707 HIGHLAND ST.  
FULTON, NY 13069

\*VERN TIDWELL  
1303 WHITEHEAD ST.  
KEY WEST, FL 33040

\*C.W. ASSOCIATES  
419 N. JOHNSON STREET  
ADA, OHIO 45610

\*RMG ENTERPRISES  
1419 1/2 7TH STREET  
OREGON CITY, OR 97045

\*LEMKE SOFTWARE  
2144 WHITE OAK  
WICHITA, KS 67207

\*DAMCO ENTERPRISES  
67 BRADLEY CT.  
FALL RIVER, MA 02720

\*NOVELSOFT  
106 7TH STREET  
TORONTO, ONT M8V 3B4  
CANADA

\*AERCO  
BOX 18093  
AUSTIN, TX 78760

\*SOFTGEMS  
P.O. BOX 119  
MAYVILLE, NY 14757

\*SIMULUSION-H2  
BOX 2382  
LA JOLLA, CA 92038

\*E-2 KEY  
SUITE 75  
711 SOUTHERN ARTERY  
QUINCY, MA 02169

\*ISI  
3770 DUKE ROAD, RR1  
VICTORIA, BC, V8X 3W9

\*TAD PAINTER  
BOX 166055  
IRVING, TX

**Fixing the MTERM Keyboard**  
 Dallas Timex / Sinclair / Amstrad UG  
 Feb 1987

Does anybody really like the way MTERM makes use of the 2068's Keyboard? It has always seemed to me as if the program was written for some other machine, and then poorly ported over. My biggest complaint is the Control Key arrangement. Why should you have to hit three keys to get a CTRL/S (XOFF) or CTRL/Q (XON)? These are things that should be made as quick and easy as possible. It's as if the programmer was saying "you should get a REAL COMPUTER."

But why get mad when they left us a way to get even. It isn't the easiest thing in the world to figure out but the XLATE tables can help. Thanks to Chuck Dawson of the Fort Worth TSUG, BBS users can find out how to change their input table to download programs from the SIG files. His work was the kernel of the idea that spawned this article.

What made it possible was Barry Carter's book Timex/Sinclair MTERM Telecommunications. If you don't have this book then you're not really online [not forgetting Pete Fischer & Steve Ishii's Guide to T/S Telecommunications, ed.]. For the work that Barry [ & Pete & Steve ] did, it's a real bargain.

My main goal was to make ESC, XON, and XOFF more accessible. The target area became the Symbol Shift Key when I realized that several of the keys got no reaction when used with Symbol Shift (SS). I wanted to use SS/A for ESC. Barry's book told me that the A was the sixth key scanned. The sixth position in the SS section of the K table is shown as unused, returning 0.

So I went to the XLATE K table and typed "85=1B" (85 is the position of SS/A on the XLATE table and 1B(hex) is the ASCII code for ESC). I tried it on my local BBS, and presto! my ESC was as good as anybody's!

I went offline and dove into the XLATE tables with dire intent - to find out what Caps Shift/7 returns and put it on the unused (oh joy!) CS/SS combination with which we are all so familiar.... No luck. CS/7 is trapped in the software somewhere, and the XLATE table shows CS/7 as unused. Tantrum over, I decided to do the best I could:

Entry	Effect
53=18	CS/5=Left arrow
55=7F	CS/9=(c)
56=19	CS/8=Right Arrow
58=1A	CS/6=Down Arrow
85=1B	SS/A=ESCape
86=13	SS/S=XOFF (PAUSE)
88=1C	SS/F=HOME
89=07	SS/G=BEL1
8A=11	SS/Q=XON (RESSUME)
8B=12	SS/W=DC2 (buffer open)
8C=14	SS/E=DC4 (buffer closed)
9B=0F	SS/I=CTRL/O (paging)
9E=FE	SS/ENTER= Term. mode menu

Not all of these are useable on any given BBS, and many more changes are possible, but these changes do make the most commonly used Controls more easily accessible. If nothing else these changes might lead you to others that are more useful still. The changes are SAVEable and LOADable so you won't have to type them in more than once. Feel free to customize your keyboard for your needs - I did.

John Battey  
 BBS: Startext MC 195355

\*ELECTRET SCIENTIFIC CO.  
 P.O. BOX 4132  
 STAR CITY, WV 26505

\*SUMWARE  
 PO BOX 13  
 ELLENTON, FL 33532

\*DELPHIC ENTERPRISES  
 PO BOX 72205  
 CORPUS CHRISTI, TX 78472

\*BYIE-BACK INC.  
 RT4 BOX 54  
 LEESVILLE, SC 29070

\*BASICALLY PROGRAMMING  
 2528 W. OLIVE AVE.  
 FULLERTON, CA 92633

\*A and J MICRODRIVE  
 SUITE "I"  
 1050 DUANE AVE.  
 SUNNYVALE, CA 94086

\*WEYNIL CORP.  
 BOX 5904  
 BELLINGHAM, WA 98227-5904

\*RUSSELL ELECTRONICS  
 RD 1 BOX 539  
 CENTRE HALL, PA 16828

\*THE WIDJUP CO.  
 1120 MERRIFIELD S.E.  
 GRAND RAPIDS, MI 49507

\*TOM COLE  
 15-1314 SPEIGHT  
 WACO, TX 76706

ZX APPEAL, Jan. '87.

\*A+ COMPUTER RESPONSE  
 69-B ISLAND ST.  
 KEENE, NH 03431

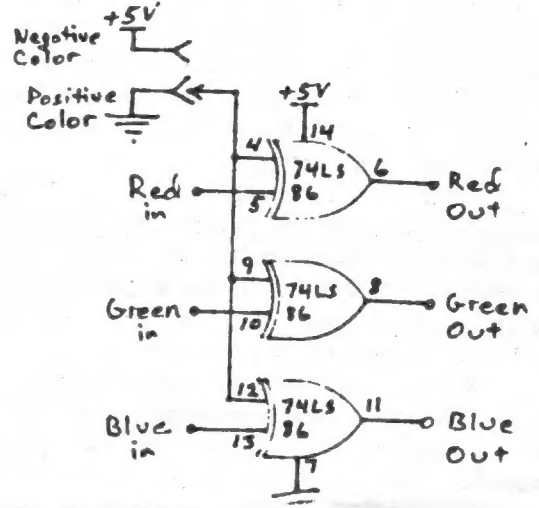
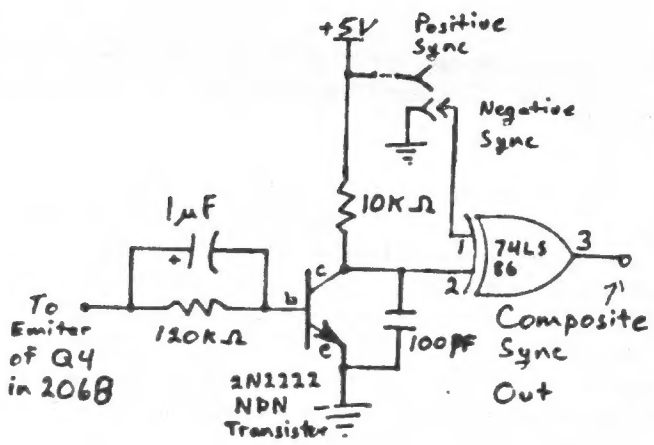
**BETTER RGB CIRCUIT**  
by Joe Williamson  
FROM THE JULY 1986 SUM N/L.

The circuit described in the february 1986 issue of SUM was designed around the Sears RGB/TV/Monitor (same as the Sanyo model # 31C426) and the Magnavox (NAP) RGB-40 or 80.

Both of these monitors (and the QL monitor as well) take negative-going composite sync and active high RGB signals and have well buffered inputs to clean up any poor inputs.

Many RGB monitors out on the market don't have these features and therefore do not work very well or at all with the circuit described. With the simple addition of a 74LS86 Quad 2-input Exclusive OR gate, you can shape (buffer) and invert all four signals to what ever format you need by changing the polarity of one of the two input lines on each of the four gates.

Also, I neglected to say what transistor was used in the original circuit; it is a 2N2222, Radio Shack #276-2009. Although, any garden variety NPN transistor should work.



### Remembering Joe Vallin

JOE VALLIN, a CATS member from almost the very beginning and a creator of some excellent computer-generated music, wandered into an un-monitored orchard recently where he plucked an APPLE before re-entering the real world.

His superbly maintained Sinclair 2068 computer and Sinclair 2040 printer now need new surroundings.

JOE will be at the next meeting--or you can alternatively reach him at 424-2241--to see about signing the appropriate adoption papers (for around \$125).

### 1986 Federal Income Tax Program

by Roald Schrack, modified for 1986 by LeBaron Washington.

Here is a listing of a program by R.A. Schrack that was published in the newsletter of March '86. I have revised it to update it for '86 taxes and have included revisions to use it with a JLO disk drive and a centronics interface.

Below are the changes necessary to change it back to use with a tape-cassette system for those members who may be interested in it.

- TO REVISE FOR USE WITH TAPE CASSETES:
1. DELETE lines 40, 50, 60, & 70.
  2. DELETE --:LET /P=0 in line 300
  3. Change line 410 to read --  
410 PRINT "6. Save program to tape"
  4. DELETE line 2070
  5. Change line 2340 to read --  
2340 CLS: SAVE "your file name"



```

10 REM ** R. A. SCHRACK-1985 **
20 REM ** REVISED BY L. H. WASHINGTON-1986
30 REM ** FOR 1986 FED. INC. TAXES
40 REM ** JLD DISC AND CENTRONICS
50 REM ** 80 COLUMN PRINTER
60 REM ** LINES 410 & 2340 - ENTER
70 REM ** FILE # YOU ARE USING
80 REM *****
90 REM 1986 FED. INCOME TAX
100 REM *****
105 GO TO 300
110 DIM M$(36,23)
120 DIM V(36)
130 DIM R(4)
140 DIM S(4)
150 LET R(1)=14
160 LET R(2)=14
170 LET R(3)=16
180 LET R(4)=17
190 LET S(1)=273
200 LET S(2)=273
210 LET S(3)=313
220 LET S(4)=341
230 GO TO 610
240 PRINT AT 11,0;ENTER 3670 IF MARRIED FILING JOINTLY
OR QUALIFYING WIDOW."
250 PRINT
260 PRINT "ENTER 2480 IF SINGLE OR HEAD OF HOUSEHOLD."
270 PRINT
280 PRINT "ENTER 1835 IF MARRIED FILING SEPARATE
RETURN."
290 RETURN
300 CLS: BORDER 5: PAPER 6: INK 9: LET /P=0:CLS
310 310 PRINT AT 2,5;"Federal Income Tax 1986"
320 PRINT
330 BORDER 1: PAPER 1: INK 9
340 PRINT "Enter number of choice from menu"
350 PRINT
360 PRINT "1. Fresh start "; FLASH 1; "ERASES ALL DATA";
FLASH 0
370 PRINT "2. Correction run"
380 PRINT "3. Input data listing"
390 PRINT "4. Results listing"
400 PRINT "5. Input data index listing"
410 PRINT "6. Save program on DISC/8"
420 PRINT
430 BORDER 3: PAPER 5: INK 9
450 PRINT "You will need the input data index listing
before you make a correction run."
460 INPUT z
470 CLS
480 IF z=1 THEN GO TO 110
490 IF z=3 THEN GO TO 1540
500 IF z=4 THEN GO TO 1660
510 IF z=5 THEN GO TO 2010
520 IF z=6 THEN GO TO 2340
530 PRINT AT 3,5;"Enter index of value to be changed."
540 INPUT k: IF k<=0 OR k>36 THEN GO TO 540

```

```

550 PRINT: PRINT "Enter new value of ";M$(k);" = "
560 INPUT v(k)
570 PRINT v(k)
580 PRINT: PRINT "Enter an R to recalculate tax or ENTER
for another correction."
590 PAUSE 0: CLS: IF INKEY$="R" THEN GO TO 1030
600 CLS: GO TO 530
610 LET M$(1)="6F NUMBER OF EXEMPTIONS"
620 LET M$(2)="7 SALARIES, WAGES, TIPS"
630 LET M$(3)="8 INTEREST INCOME"
640 LET M$(4)="9c ADJUSTED DIVIDENDS"
650 LET M$(5)="10 REFUNDED STATE INC. TAX"
660 LET M$(6)="12 BUSINESS INCOME (C)"
670 LET M$(7)="13 CAPITAL GAINS (D)"
680 LET M$(8)="14 CAP. GAINS DIST."
690 LET M$(9)="16 TAXABLE PENSIONS"
700 LET M$(10)="18 RENTS, ROYALTIES (E)"
710 LET M$(11)="19 FARM INCOME (F)"
720 LET M$(12)="22 OTHER INCOME"
730 LET M$(13)="25 EMP. BUS. EXP.(2106)"
740 LET M$(14)="26 IRA DEDUCTION"
750 LET M$(15)="30 MARRIED CPLE. DED."
760 LET M$(16)="A1 MEDICINES AND DRUGS"
770 LET M$(17)="A2a DOC. AND INS. BILLS"
780 LET M$(18)="A2b MED. TRANSPORTATION"
790 LET M$(19)="A2c OTHER MED. EXP."
800 LET M$(20)="A6 STATE INCOME TAXES"
810 LET M$(21)="A7 REAL ESTATE TAXES"
820 LET M$(22)="A8 OTHER DEDUCT. TAXES"
830 LET M$(23)="A11 MORTGAGE INTEREST"
840 LET M$(24)="A12 OTHER INTEREST PAID"
850 LET M$(25)="A15 CASH CONTRIBUTIONS"
860 LET M$(26)="A16 OTHER CONTRIBUTIONS"
870 LET M$(27)="A19 THEFT, CASUALTY LOSS"
880 LET M$(28)="A20 UNION, PROF. DUES"
890 LET M$(29)="A22 OTHER MISC. DED."
900 LET M$(30)="A25 DEDUCTIONS OFFSET"
910 LET M$(31)="39 ADDITIONAL TAXES"
920 LET M$(32)="45&49 TAX CREDITS"
930 LET M$(33)="56 OTHER TAXES"
940 LET M$(34)="57 TAXES WITHHELD"
950 LET M$(35)="58 TAX PREPAYMENTS"
960 LET M$(36)="63 OTHER PAYMENTS"
970 FOR I=1 TO 36
980 PRINT AT 9,1;"ENTER ";M$(I)
990 IF I=30 THEN GO SUB 240
1000 INPUT V(I)
1010 CLS
1020 NEXT I
1030 LET TI=0
1040 FOR I=2 TO 12
1050 LET TI=TI+V(I)
1060 NEXT I
1070 LET TA=V(13)+V(14)+V(15)
1080 LET AGI=TI-TA
1090 LET MY=V(16)+V(17)+V(18)+V(19)
1100 LET MD=MY-.05*AGI
1110 LET MD=INT (MD*100+.05)/100
1120 IF MD<=0 THEN LET MD=0
1130 IF AGI>=40000 THEN GO TO 1170

```

1140 PRINT " YOUR ADJUSTED GROSS INCOME IS \$";AGI;" FIND  
YOUR SALES TAX FROM TABLE ON PAGES 42 AND 43 AND ENTER IT.

1150 INPUT ST  
1160 GO TO 1180  
1170 LET ST=(1+INT ((AGI-40000/5000))\*R(V(1))+S(V(1)))  
1180 LET TD=0  
1190 FOR I=20 TO 29  
1200 LET TD=TD+V(I)  
1210 NEXT I  
1220 LET TD=TD+ST+MD  
1230 LET TD=INT (TD\*100+.05)/100  
1240 LET SD=TD-V(30)  
1250 LET SD=INT (SD\*100+.05)/100  
1260 LET TAXI=AGI-SD-1080\*V(1)  
1270 IF TAXI>50000 THEN GO TO 1320  
1280 CLS  
1290 PRINT " YOUR TAXABLE INCOME IS \$";TAXI;" USE TAX  
TABLES ON PAGES 34-39. ENTER TAX."  
1300 INPUT TAX  
1310 GO TO 1510  
1320 REM CALC. FOR MARRIED FILING JOINTLY  
1330 LET TAX=10543.7  
1340 LET MIN=49420  
1350 LET TAXR=.38  
1360 IF TAXI<64750 THEN GO TO 1500  
1370 LET TAX=16369.1  
1380 LET MIN=64750  
1390 LET TAXR=.42  
1400 IF TAXI<92370 THEN GO TO 1500  
1410 LET TAX=27969.5  
1420 LET MIN=92370  
1430 LET TAXR=.45  
1440 IF TAXI<118050 THEN GO TO 1500  
1450 LET TAX=39525.5  
1460 LET TAXR=.49  
1470 IF TAXI<175250 THEN GO TO 1500  
1480 LET TAX=67553.5  
1490 LET TAXR=.5  
1500 LET TAX=TAX+TAXR\*(TAXI-MIN)  
1510 LET TAX=(INT (100\*TAX))/100  
1520 LET TTAX=TAX+V(31)-V(32)+V(33)  
1530 LET TAXDUE=TTAX-V(34)-V(35)-V(36)  
1540 CLS  
1550 PRINT "TO SCREEN (S) OR PRINTER (P)": PAUSE 0  
1560 IF INKEY\$<>"S" THEN GO TO 1900  
1570 PRINT AT 9,1;" SUMMARY 1986 FED. INCOME TAX"  
1580 PRINT AT 11,6;"INPUT DATA"  
1590 FOR I=1 TO 36  
1600 PRINT M\$(I); TAB 24;V(I)  
1610 NEXT I  
1620 PRINT #1;"PRESS <ENTER> TO RETURN TO MENU"  
1630 PAUSE 0; GO TO 300  
1640 PRINT  
1650 PRINT " END OF INPUT DATA, WAIT ---"  
1660 CLS  
1670 PRINT "SUMMARY OF RESULTS"  
1680 PRINT "1986 FEDERAL INCOME TAX"  
1690 PRINT  
1700 PRINT "23 TOTAL INCOME";TAB 24;TI

1710 PRINT "31 TOTAL ADJUSTMENTS";TAB 24;TA  
1720 PRINT "32 ADJ. GROSS INCOME";TAB 24;AGI  
1730 PRINT "A5 MEDICAL DEDUCTION";TAB 24;MD  
1740 PRINT "A8a SALES TAX";TAB 24;ST  
1750 PRINT "A24 TOTAL DEDUCTIONS";TAB 24;TD  
1760 PRINT "A26 SUMMARY OF DEDUCT.";TAB 24;SD  
1770 PRINT "37 TAXABLE INCOME";TAB 24;TAXI  
1780 PRINT "38 TAX ON INCOME";TAB 24;TAX  
1790 PRINT "56 TOTAL TAX";TAB 24;TTAX  
1800 IF TAXDUE>0 THEN GO TO 1840  
1810 LET OP=-TAXDUE  
1820 PRINT "65 OVERPAID !";TAB 24;OP  
1830 GO TO 1850  
1840 PRINT "68 TAX DUE";TAB 24;TAXDUE  
1850 PRINT  
1860 PRINT "IF PRINTOUT OF OUTPUT IS DESIRED PREDD ""P"",  
OTHERWISE PRESS ""M"" FOR MENU."  
1870 PAUSE 0; IF INKEY\$<>"P" THEN GO TO 300  
1880 GO TO 2120  
1890 GO TO 300  
1900 LET /P=0  
1910 LPRINT "INPUT FOR 1986 FED. INCOME TAX"  
1920 LPRINT  
1930 FOR I=1 TO 36  
1940 LPRINT M\$(I);TAB 25;V(I)  
1950 NEXT I  
1960 LPRINT 2300 GO TO 2320  
1970 LPRINT 2310 LPRINT "68 TAX DUE";TAB 25;TAXDUE  
1980 LPRINT 2320 LPRINT  
1990 LPRINT 2330 GO TO 300  
2000 GO TO 300 2340 CLS: SAVE/8: VERIFY/8  
2010 FOR I=1 TO 36 2350 BEEP 1,1: BEEP .5,0: BEEP .5,2  
2020 LPRINT I;" ";M\$(I) 2360 GO TO 300  
2030 NEXT I  
2040 GO TO 300  
2050 LPRINT TAB 1;"SUMMARY 1986 FED. INCOME TAX"  
2060 LPRINT TAB 6;"INPUT DATA"  
2070 LET /P=0  
2080 FOR I=1 TO 36  
2090 LPRINT M\$(I);TAB 24;V(I)  
2100 NEXT I  
2110 PRINT  
2120 PRINT: PRINT  
2130 LPRINT TAB 4;"SUMMARY OF RESULTS"  
2140 LPRINT " =====": LPRINT  
2150 LPRINT TAB 2;"1986 FEDERAL INCOME TAX"  
2160 LPRINT  
2170 LPRINT "23 TOTAL INCOME";TAB 24;TI  
2180 LPRINT "31 TOTAL ADJUSTMENTS";TAB 24;TA  
2190 LPRINT "32 ADJ. GROSS INCOME";TAB 24;AGI  
2200 LPRINT "A5 MEDICAL DEDUCTION";TAB 24;MD  
2210 LPRINT "A8a SALES TAX";TAB 24;ST  
2220 LPRINT "A24 TOTAL DEDUCTIONS";TAB 24;TD  
2230 LPRINT "A26 SUMMARY OF DEDUCT.";TAB 24;SD  
2240 LPRINT "37 TAXABLE INCOME";TAB 24;TAXI  
2250 LPRINT "38 TAX ON INCOME";TAB 24;TAX  
2260 LPRINT "56 TOTAL TAX";TAB 24;TTAX  
2270 IF TAXDUE>0 THEN GO TO 2310  
2280 LET OP=-TAXDUE  
2290 LPRINT "65 OVERPAID !";TAB 24;OP

# Indianapolis: The Place To Be In May

(Reprinted from TIME DESIGNS Magazine)

If you read the reports about the Mid-West Timex Sinclair Computerfest which was held in Cincinnati, Ohio last year...you may have wished that you had been there. Well, now you have a second chance. It's time to start saving your nickels, dimes, and "cash in" on your pop bottles. That's right, the 2nd Annual Mid-West Timex Sinclair Computerfest will be held in Indianapolis, Indiana on May 2nd and 3rd...and plans are going "full steam ahead". If you can fly, drive, ride the bus, ride the train, walk (?)...no matter what mode of transportation you use...you might not want to miss perhaps the single most important event for Sinclair enthusiasts in North America. In fact, the only event of it's kind held in the U.S. [there have only been two other such conventions: Boston in 1983 and Cincinnati in 1986].

The 1987 Mid-West Timex Sinclair Computerfest will be located at the Holiday Inn North in Indianapolis (just off North I-465 at 3850 Depauw Blvd.). This is a "Holi-dome", and one of the top hotels in the Holiday Inn chain. The exhibition area is twice as large as last year, with over 5,000 square feet of display space plus areas for seminars, conferences and a hospitality suite.

This year's executive director of the Computerfest is Paul Holmgren, who not only is a fan of Sinclair computers, but also has ties to the city commerce department of Indianapolis. Paul will be working closely with Computerfest founder and promoter, Frank Davis. Other Computerfest committee members are representatives of TS user groups from Indiana and Ohio.

The list of dealers that have indicated they will be attending the show at this early date has been impressive. These include: Sharp's Inc., C.W. Associates, Knighted Computers, Thomas B. Woods and Syncware News, Variety Sales, Zebra Systems Inc., Markel Enterprises,

Time Designs Magazine Company, and The WJDJUP Company; along with several user groups from Indiana, Ohio, New York, Maryland, and Wisconsin. As we went to press, more dealers (including some of the largest TS mail order houses) expressed interest in the show.

Tickets for the TS Computerfest can be purchased in advance for a discount before March 30 (\$4 for an individual; \$7 for the family plan)...or at the door for \$6/individual or \$9/family plan. The Computerfest will be open on Saturday May 2nd from 9-6pm and on Sunday May 3rd from 9-5pm. Accomodations can be obtained at the "headquarters" hotel for a special rate by mentioning the TS Computerfest (phone number is 317-872-9790); or lodging is also available at six other hotels in the immediate area. Transportation to and from the International Airport is being provided by the Holiday Inn, for those staying at the headquarters hotel.

Some of the activities planned for the Computerfest include workshops by Timex Sinclair "experts", and most of the workshops will be repeated twice, to allow for a more convenient schedule for all attendees. There will be a swap meet for used equipment or programs; and like last year's show, valuable door prizes will be given away (some lucky fellow went home with a complete QL system including computer, RGB monitor and printer!). On Friday evening at 7:00pm on May 1st, will be a banquet for all exhibitors participating in the show.

Every Timex and Sinclair computer will be featured in one way or another. The March/April '87 issue of Time Designs will carry more information on the Mid-West TS Computerfest as well as an updated exhibitor listing and schedule of events.

For more information on the show, lodging, tickets, and display booth reservations...write or call: Paul Holmgren, 5231 Wilton Wood Ct., Indianapolis, IN 46254, tel. (317) 291-6002; or Frank Davis, 513 E. Main St., Peru, IN 46970, tel. (317) 473-8030.

Capitol Area Timex/Sinclair Users' Group  
P.O. Box 725  
Bladensburg, MD 20710

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Phone Home \_\_\_\_\_ Office \_\_\_\_\_ ZIP \_\_\_\_\_

Memberships - \$18.00 (family/individual); make checks payable to C.A.T.S.  
If family membership, please list family members participating:

Occupation \_\_\_\_\_  
Xen Radio call sign \_\_\_\_\_  
Equipment \_\_\_\_\_  
ZX 80 \_\_\_\_\_ disk size \_\_\_\_\_  
XA 80 \_\_\_\_\_ full keyboard \_\_\_\_\_  
ZX 81 \_\_\_\_\_ Printer \_\_\_\_\_  
TS 1000 \_\_\_\_\_ type \_\_\_\_\_  
TS 200 \_\_\_\_\_ other interface \_\_\_\_\_

Special interest use for computers: ie, games, ham radio interface, business, other, etc. \_\_\_\_\_

Languages: Basic \_\_\_\_\_ Other \_\_\_\_\_  
Machine \_\_\_\_\_  
No. of years computer experience \_\_\_\_\_  
What committees would you like to serve on? \_\_\_\_\_

Comments: *Where did you hear of C.A.T.S.?*  
Do not write below:  
Dr. Pd. \_\_\_\_\_ Amt. \_\_\_\_\_ Membership No. \_\_\_\_\_  
Ca. \_\_\_\_\_ Ch. \_\_\_\_\_

# First Class

Dues = \$18.00 per year, per family.

IF YOU ARE NOT A MEMBER OF CATS, THIS IS THE ONLY ISSUE YOU WILL RECEIVE

At: New Carrollton Public Library  
7414 Riverdale Road (Hwy 410), New Carrollton, MD

Saturday, March 14, 1987  
12:00 PM Hardware Meeting  
2:00 PM General Meeting

COME TO OUR MEETING!  
The next meeting of C.A.T.S. will be held on:



CATS Newsletter  
P.O. Box 725  
Bladensburg MD 20710

## The Capitol Area Timex/Sinclair User's Group

is a non-profit group devoted to serving the interests of those who own, use, or are interested in the Timex/Sinclair family of computers.

Submissions of pertinent articles are gratefully accepted - preferably in 3 5/8" columns. The deadlines are.....

### Officialdom

- |                            |                            |
|----------------------------|----------------------------|
| President & contact person | Tom Bent<br>(301) 730-7187 |
| Vice-President             | Hank Dickson               |
| Treasurer                  | Ruth Fegley                |
| Editor                     | Mark Fisher                |
| N/L Production             | Sarah Fisher               |
| Mailing & Finishing        | Bob Curnutt                |

Newsletter	Meeting
March 23	March 14
April 20	April 11
	May 9

Monthly meetings are held from 12:00 to 5:00, on the second Saturday of each month, at the New Carrollton Branch Public Library.

### Newsletter exchange:

CATS maintains a gratis exchange of newsletters with approximately 30 User's groups across the country. Clubs not sending a n/l to us for six months are automatically dropped from the list.

### Membership Info:

Memberships cost \$18.00 per year, and are good for 12 months. 95% of dues goes to printing and first class mailing costs.

### Network Info:

Timex SIG on Compuserve: Wednesday night, 10PM Eastern time (GO CLUB)  
QZX BBS:(505) 522-7081 FIDO net 15, node 6  
----- East Coast: (703) 547-4815 FIDO net 18, node 9